

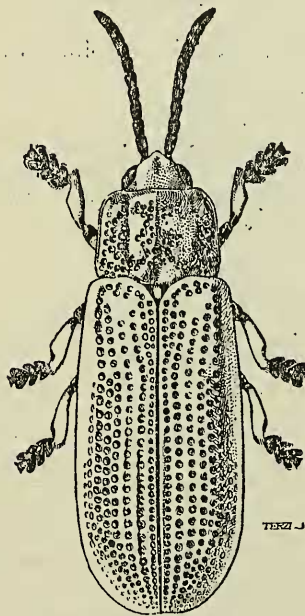
31. New Cryptostome Beetles. By S. MAULIK, F.Z.S.

[Received May 7, 1923: Read May 29, 1923.]

(Text-figures 1-8.)

In the present paper are described one new genus and six new species of Hispinæ and Cassidinæ. Two facts are interesting: the association of two Hispids of the same genus, structurally different but having strong resemblance in superficial colouring, in the same food-plant; and secondly, the new Cassid beetle from Palestine possesses a claw-structure which is not found usually in this group of beetles. These facts are described in detail below.

Text-figure 1.

Dorsal view of *Callispa almora*.*CALLISPA ALMORA*, sp. n.

Body elongate. Colour shining yellow; mouthparts, antennæ, trochanter, apices of femora, and bases of tibiæ pitch-black; underside brown.

Head smooth, impunctate, and slightly produced between the bases of the antennæ. The antennæ are hardly thickened towards the apex, the apical joint pointed, subnitid; the third joint is longer than the second, but slightly shorter than the first and second combined. *Prothorax* almost as long as broad, slightly narrowed in front; the basal margin bisinuate, the sides straight and margined, the anterior angles rounded, the posterior acute. The upper surface with a longitudinal depression on each side, and also with one in the middle at base; in the lateral depressions are some coarse punctures; the middle longitudinal area slightly convex, but having similar punctures except along a narrow middle line; some of the punctate portions are slightly depressed. *Scutellum* oblong, sides straight, anterior edge broadly rounded; surface smooth, shining, impunctate. *Elytra* very slightly broader at base than the prothorax, parallel-sided, punctate-striate; besides the short scutellar row on each elytron there are eight rows at the base and ten rows in the middle; the interstices are smooth and flat. The punctures are much stronger in the middle area than elsewhere. *Underside* smooth, shining, impunctate except for a few coarse punctures on the sides of the thoracic sterna.

Length 5 mm.

India: the Himalayas, Almora; 4500 ft., Khaula (*H. G. Champion*).

Type in the British Museum.

Described from six examples.

This species is related to *C. nigritarsata* Maulik, which is from Ceylon, but differs in the coloration, the relative lengths of the second and third joints of the antennæ, and the structure of the prothorax with its punctation.

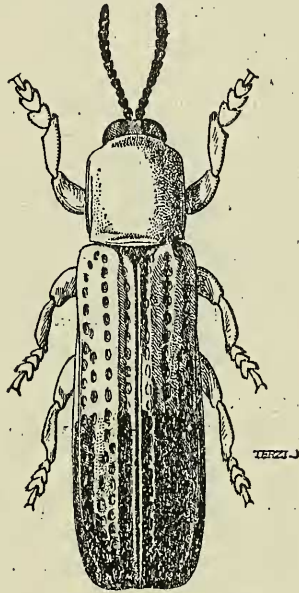
DOWNESIA SASTHI, sp. n.

Body elongate, narrow. Colour shining brown, with the eyes, antennæ, and the apical area of the elytra black.

Head with the eyes large; the interocular space smooth, with a few punctures. The antennæ are short, scarcely reaching the middle of the pronotum, very slightly thickened towards the apex, and covered with hair, more so towards the apex; the first joint rounded, the second longer than the third, the third, fourth, fifth, and sixth almost equal to each other in length, from the seventh to the eleventh slightly thickened, the last the longest and bluntly pointed. *Prothorax* quadrate, longer than broad, very slightly narrowed behind, the sides parallel and margined; the anterior angles rounded, the posterior ones emarginate. Basal margin at the middle deeply channelled. The upper surface sparsely and confusedly punctate, there being less punctures in the middle than elsewhere; the front rounded margin impunctate. *Scutellum* small; impunctate. *Elytra* broader at the base than the prothorax, parallel-sided, very slightly constricted in the middle; at the rounded apical angles the margin is explanate. Each elytron has

six rows of punctures on the apical surface: the first runs along the suture right to the apical surface, where it does not become double, the next row of punctures divides itself into two on the black apical surface of the elytra, then another row commencing from the humerus soon becomes double, finally there is the marginal single row; on the apical area the third interstice is raised into a short, sharp costa; all the interstices have the appearance of being slightly raised; on the brown portion of the elytral surface the punctures are surrounded by a black ring, and hence appear much larger than those on the black area; a scutellar row is absent. *Underside* smooth, shining, impunctate.

Text-figure 2.

Dorsal view of *Downesia sasthi*.

The tarsi of the front legs almost equal in length to the tibiae and larger than those of the other legs. The claw-joint of the tarsus projects beyond the third joint.

Length 5-6 mm.

W. Himalayas: Kumaon (*H. G. Champion*). Found on *Thyrsanolæna agrostis*.

Type in the British Museum.

Described from nine examples.

These nine examples were sent with four examples of *Downesia gestroi* Baly, all found in sheaths of *Neyraudia*, to

Mr. G. C. Champion, who was good enough to afford me the opportunity of examining them.

The superficial resemblance between *D. gestroi* and *D. sasthi* is so remarkable that they were considered as the same species. The structural differences between them are considerable, and warrant the erection of a new species. The close association of these two structurally different forms, but possessing a strong superficial resemblance, in the same food-plant is interesting, and is suggestive of some form of mimicry. *D. ceylonica* Maulik, *D. ratana* Maulik, and *D. kanarensis* Weise have also similar coloration of the elytra, viz. the apical portion is black while the basal is brown.

KARI, gen. nov.

This genus is erected for the insect of which a detailed description is given below, according to the following characters: (1) the shape of the body, parallel-sided, rounded posteriorly, the pronotum transversely elliptical; (2) the structure of the antennæ, which partly lie in the channel on each side of the cavity in which the head is imbedded; (3) the peculiar structure of the tarsus, in which there is no felt covering on the underside, and the deeply bilobed character, especially of the third joint, is absent. The structure of the tarsi suggests that they have been adapted to a desert life. The drab colour of the insect seems to support this view. At present there are no data available with regard to the larvæ and the bionomics of the insect. By the shape of the body and the antennal channels it is related to the genus *Glyphocasis*, but the structure of the tarsus places this genus in a unique position.

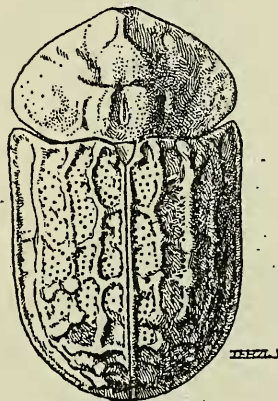
KARI BRUNNEA, sp. n.

Body oblong, parallel-sided, rounded posteriorly; the front of the pronotum slightly drawn forwards; in profile the dorsal side of the insect has a slight elevation posteriorly. Colour dull brown; the posterior undulated edge of the pronotum opposing the anterior similarly undulated edge of the elytra, black; the eyes, mouthparts, and the five apical joints of the antennæ black or piceous.

Head imbedded in a hollow, each side of which forms a channel in which lie the six basal joints of the antennæ. The clypeus flat, indented with large coarse pits, some of which are confluent with each other and bear a few erect hairs. The antennæ pass just beyond the base of the prothorax on the underside, the first joint thickened, club-shaped; the second small, rounded; the third longer than the fourth, which is equal in length to the fifth; the sixth slightly shorter than the fifth; seventh to eleventh joints form an elongated thickened club. The whole antenna is sparsely covered with short, erect, whitish hairs. *Prothorax* transversely oval, broader than long, as broad at the base as the elytra; the middle of the slightly drawn out front edge with a very shallow

emargination; each half of the basal margin bisinuate, the lateral margins rounded. The edge all round, except the basal black portion, bears short, erect, whitish hairs, is uneven, more so at the lateral rounded portions, and is generally darker than the ground-colour of the pronotum. The upper surface is very uneven; having the following structure: the middle of the basal area is enormously raised into two high peaks (they being the highest points of the surface) with a depression between them; on each side of these there is a broadly convex, uneven, and oblique area sloping down to the edge; anterior and posterior to these swollen areas are deep depressions; in front the surface also slopes down, and is broadly convex and tuberculate, narrowing down in the middle into a longitudinal ridge which reaches the front edge; on either side of this ridge the surface is deeply depressed; the frontal area, including the swollen and the depressed portions, contain

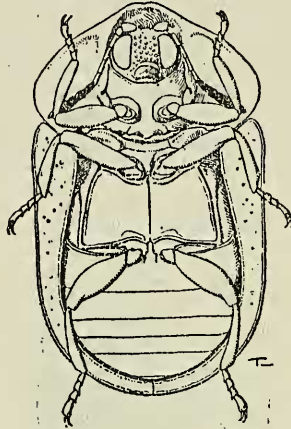
Text-figure 3.

Dorsal view of *Kari brunnea*.

round black spots; the posteriorly situated depressed areas also contain similar spots; some of these may be impressed pits or punctures. *Scutellum* triangular, with the surface fairly plane. *Elytra*: the front black edge is bisinuate on each side and roughly serrate. The edge all round is roughly serrate, darker than the body-colour, and bears short, erect, whitish hairs. Each elytron is punctate, and with costæ and tubercles. The whole surface is very sparsely scattered over with short, erect, whitish hairs which are visible under a high power. The suture is strongly raised. On each elytron there are four costæ: the first, that nearest to the suture, is the strongest, running the whole length parallel to the suture, and in its posterior portion at several places swollen into tubercles and joined to the suture and to the second costa by many short transverse costæ; the second and

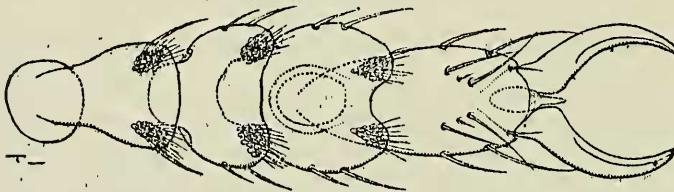
third costæ are feebler, and arising from the humerus they break up into tubercles posteriorly without reaching the apical area of the elytron; the fourth costa is hardly developed at the base, but more strongly so posteriorly, bending round to join the first costa on the apical area; between the fourth costa and the margin,

Text-figure 4.

Ventral view of *Kari brunnea*.

which is also raised, the surface is much depressed, containing deeper punctures and much broken up at various places by swellings. *Underside* more shiny than the upperside. The epipleuræ of the elytra and the under surface of the pronotum bear a few scattered dark punctures. The legs are very sparsely

Text-figure 5.

Under surface of tarsus of *Kari brunnea*.

scattered over with short, erect, whitish hairs. The first joint of the tarsus is constricted at the base and dilated at the apex; the second is broader than long, slightly emarginate at the apex; the third is similar to the second in structure, not deeply bilobed as is usual in the Chrysomelidæ; the claw-joint arises from the base

of the third, long, more or less cylindrical, projecting much beyond, as broad at the base as at the apex; the claws are simple. There is no felt covering underneath, as is usual in the Chrysomelidæ. Viewed from above, the tarsus appears to have uniform breadth throughout its length, and is covered with stiff, erect hairs. Each side of the first, second, and third joints has a little strongly chitinized projection which is reminiscent of the lobes of the joints; these projections are clearly visible when the tarsus is viewed sideways, and on their underside they bear tufts of bristles, so that there are altogether three pairs of them.

Length 5 mm.

Locality. Palestine, 10 miles east of Jerusalem, 1000 ft., 17. iv. 1922 (*P. A. Buxton*).

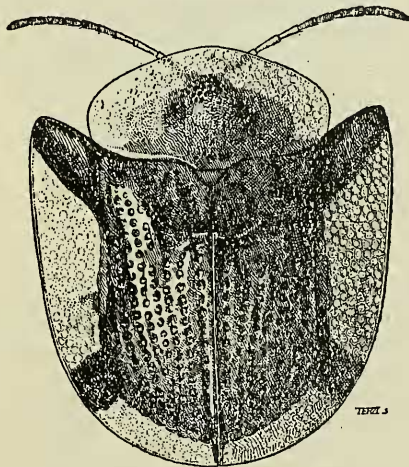
Type in the British Museum.

Described from one example.

CASSIDA RATI, sp. n.

Body subtriangular. Colour yellow-brown; elytra with ill-defined darker patches, the explanate margin at the anterior and posterior angles with deep red-brown patches, the sutural angles deep red-brown; underside (except the legs) shining black.

Text-figure 6.



Dorsal view of *Cassida rati*.

Head with the clypeus triangularly elevated towards the base of the antennæ, otherwise the surface is plane, having stiff, long hairs at the sides. The antennæ pass beyond the anterior angles of the explanate margins of the elytra; the first joint elongate, thickened; the second short; the third, fourth, and fifth almost

equal to each other in length; the sixth shorter, slightly dilated at the apex; the seventh still shorter, more thickened; the eighth to eleventh slightly thickened, black, and more hairy. *Prothorax* much narrower than the base of the elytra, broader than long. The sides rounded and front margin widely arched; each half of the basal margin bisinuate and edged with black. The surface is convex, smooth, shining, impunctate, and slightly sloping from the base to the front; on each side of the disc there are two indistinct, roundish, darker patches. The explanate margins are transparent, with a honeycomb structure. *Scutellum* triangular, smooth, impunctate. *Elytra* much broader at the base than the prothorax. A little posterior to the scutellum the surface is raised into a hump (not visible in the illustration). On each elytron there are nine rows of rather coarse punctures: the two nearest to the suture run right up to the end, the others converge and terminate on the apical area of the elytron; besides these rows a few punctures may be said to represent a short scutellar row, and some very coarse pits, more regular posteriorly, along the extreme margin may represent a tenth row of punctures. The interstices are more or less costate, particularly the first two. The surface has some indistinct patches of dark-brown colour; the red-brown fascia on the explanate margin at the anterior angles (which are rounded) continues as a lateral band, joining the similar fascia at the posterior angle. The explanate margins transparent and with a honeycomb structure. *Underside*: the abdominal sternites sparsely covered with brownish hairs; those on the side longer. The claws simple, projecting slightly beyond the bilobed joint.

Length 7 mm.; *breadth* 6 mm.

India: Manipur (*Doherty*).

Type in the British Museum.

Described from one example.

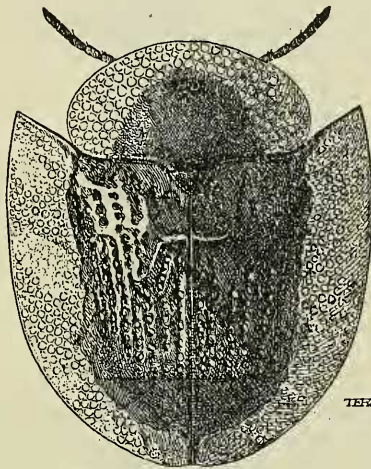
CAESIDA MANIPURIA, sp. n.

Body subtriangular. Colour yellow-brown, with darker brown patches on the elytra. The anterior lateral angles of the explanate margin of the elytra are very sharp.

Head with the clypeus slightly convex, smooth, impunctate. The antennæ extend beyond the anterior angles of the explanate margin of the elytra; first joint elongate, club-shaped; the second almost as long as the third, constricted at the base a little dilated towards the apex; the third, fourth, and fifth almost equal to each other in length; the sixth shorter; seventh to eleventh a little thicker, more hairy; the last two piceous. *Prothorax* elliptical, much broader than long, the front margin widely arched. The disc convex, slightly sloping from the base to the anterior margin, smooth, impunctate. The explanate margin transparent, with a honeycomb structure. *Scutellum* triangular, smooth, shining, impunctate. *Elytra* much broader at the base than

the prothorax. That the anterior lateral angles of the explanate margins of the elytra are acute and sharp is an important character. A little posterior to the scutellum there is a hump (not visible in the illustration). On each elytron there is a short scutellar row consisting of a few punctures, and ten rows of coarse punctures, including the extreme marginal one which consists of a few coarse pits. The rows are not very regular, in some places the punctures being confused. The interstices are more or less costate. The dark brown patches are obsolescent, there being two, one below the humerus and the other at the posterior angle, dark pitch-black; these may form with the obsolescent patches a lateral band. The explanate margins are transparent, with a honeycomb structure. *Underside* uniformly

Text-figure 7.

Dorsal view of *Cassida manipuria*.

brown, with the middle area of the abdomen a shade darker. The claw-joint hardly projects beyond the bilobed joint; claws simple.

Length 7 mm.; *breadth* 6 mm.

India: Manipur (*Doherty*).

Type in the British Museum.

Described from two examples, one of which is defective.

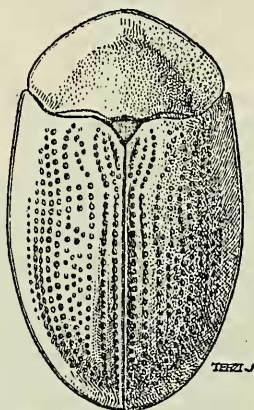
CASSIDA DIMBAKAR, sp. n.

Body elongate-ovate. Colour uniformly brown above; underside black, except the legs and the sides of the abdomen.

Head black, with the clypeus flat. The antennæ hardly reaching the base of the elytra; the first joint thickened, club-

shaped; the second smaller; the third, fourth, and fifth almost equal to each other in length; the sixth and seventh slightly shorter; the eighth to eleventh formed into a thickened club, which is piceous. *Prothorax* broader than long, as broad as the elytra at the base, the lateral angles being near the base; the front margin uniformly arched. The upper surface slopes from the base to the anterior margin, convex and impunctate; the explanate margin with a honeycomb structure. *Scutellum* small, triangular, smooth, and impunctate. *Elytra* ovate, with the sides and the explanate margins sloping down. On each elytron,

Text-figure 8.

Dorsal view of *Cassida dimbakar*.

besides a very short scutellar one, there are eleven other rows of punctures; the fourth row is irregular and confused, the rows meeting in pairs on the apical area. The interstices more or less costate. *Underside*: abdominal sternites slightly covered with hairs.

Length 5.5 mm.

India: ex coll. Linn. Soc.

Type in the British Museum.

Described from one example.